

Numerical invariants and bounded cohomology

Speaker: Filippo Sarti

Abstract: The theory of numerical invariants has been strongly exploited to prove rigidity behaviors of representations of lattices in the context of Hermitian Lie groups.

Recently the theory has been formulated in the wider context of measurable cocycles, and this allowed several adaptations of results proved for representations.

The aim of this talk is first to introduce the notion of numerical invariants for representations using maps between bounded cohomology groups. We will show how boundaries and boundary maps play a crucial role in the study of rigidity by presenting an example.

The second part will be dedicated to a brief introduction to measurable cocycles and to the definition of numerical invariants in this context. We will try to understand on the one hand what follows straightforwardly from the classical theory for representations, and on the other hand what are the nodus and the main differences.